
CONSERVATION

Conservation and protection of natural resources is becoming an increasingly important aspect of daily life in every community. Air, water, land, and energy are resources which must be conserved and/or protected. Conservation is the planned management, preservation, and wise utilization of natural resources. Its obligation is to prevent the wasteful exploitation or destruction of the community's natural resources and adoption of policies for their preservation, development and wise use.

AIR QUALITY

Probably no single natural resource has such direct and intractable bearing on the public health, safety and welfare as air. Unlike other resources, it permits no substitutes, cannot be imported when local supplies are deteriorated, and allows no reduced-use conservation measures. The management of air resources is dependent on both local and regional activities and controls.

The resource itself is clearly regional, however, the generation of air pollution is local in nature and can be affected by local land use and transportation decisions. Intensity of development, residential densities, the location of major destinations in relation to residential development, the design of streets and highways, and transportation choices available to the populace all help to determine the amount of air pollution in Mission Valley. The geographic pattern of higher mesas partially surrounding the urbanized community helps to hold and concentrate pollution within the local air basin. Mission Valley has this particular geographic pattern, the strong automobile orientation of the community has increased the concentrations of pollutants which tend to collect in the Valley.

NOISE

The freeways crossing and extending the length of the Valley contribute significantly to the noise levels there. Events held in San Diego Jack Murphy Stadium also contribute to noise levels in the eastern section of the community. Currently, only stadium concerts and firework displays have noise related regulations. Each of these events may not exceed a 95 decibel average (measured at the



press level) and must end at a prescribed time. Average noise levels (hourly) for sporting events (football games and motorcycle racing) have been measured at between 93 and 95 decibels. The noise generated by I-15 between Friars Road and I-8 is 76 decibels at 50 feet from the center of the outside lane, based on a daily traffic count of 57,800. Future modification to the stadium should take into consideration additional noise abatement measures. The recent seating expansion project which partially enclosed the southeastern portion should provide some noise attenuation of stadium events.

WATER QUALITY AND CONSERVATION

The use, conservation, supply and distribution of water are critical issues in Mission Valley as they are in all of Southern California. Since almost all urban activity is dependent to some extent on water, it is important that water quality is maintained and the supply of water is properly managed. In Mission Valley, there is another consideration; that of the impact of water on the landscape in the form of surface water features and flooding. A second aspect is the use and preservation of water for recreational or aesthetic purposes, including support of water-based wildlife and plant life.

LAND

Land resources in Mission Valley include soils, hillsides, canyons and the floodplain. Land uses which do not use the available land to its best advantage, or which destroy the topography, detract from the overall appearance of the Valley, deplete its stock of resources, and contribute to erosion and sedimentation.

HABITAT

The riparian and wetland habitats located along the San Diego River are a rare resource in Southern California and, as such, should be conserved. The Wetland Management Plan for the San Diego River discusses the quantity and quality of habitat types in the Valley and provides recommendations for their conservation.

ENERGY

There is general agreement that existing ways of life, urban patterns, transportation facilities, buildings, and equipment all reflect a past when energy was abundant and cheap. Many other countries, with living standards equal to ours, use less than half the energy per capita that is consumed in the United States. Apart from savings in transportation, the next most likely area for improving efficiency is building and development design and land use patterns. It is indisputable that sprawled low-density urban development increases travel distances, street and highway requirements, public utility extensions, and public service costs (fire, police, schools)—all of which translate directly into increased energy use. Grouped structures and higher density development have recognized energy savings. Subdivisions in areas that are hot in summer and cold in winter, or in areas where auto dependence is mandatory, or where cultural and commercial and recreational and employment facilities are lacking, can only result in increased energy use—not only for initial development but also in yearly operation

and in the more nebulous energy costs that traffic congestion, waste water, and public services demand.

In addition to the location of development, its design can contribute to better use of energy. Narrow streets reduce construction energy and materials, and reflected summer heat. Deciduous street trees allow summer shade and winter sun on buildings and streets, and make walking and bicycling more attractive. More extensive walks and bicycle paths reduce auto use. Smaller minimum lot sizes reduce travel, utility and service distances.

Important energy savings can also be realized through energy-conserving site planning and building design techniques and principles. Flexibility in required setbacks allows buildings to be oriented to maximize sun access and wind for natural heating and cooling factors. Designs that consider micro-climates, building efficiency, summer shade and winter exposure of windows, and the energy implications of colors and materials can reduce total energy operating needs by as much as 50 percent.

OBJECTIVES

- Protect and enhance the quality of Mission Valley's air and water resources.
- Conserve the Valley's water, land, and energy resources

PROPOSALS

- Apply and enforce the recommendations of the Regional Air Quality Strategy (RAQS).
- Minimize and avoid adverse noise impacts by planning for the appropriate placement and intensity of land uses relative to noise sources.
- Provide guidelines for the mitigation of noise impacts where incompatible land uses are located in a high noise environment.
- Monitor potential sources of water contamination and take necessary steps to eliminate existing problems and to prevent potential problems.
- Encourage water conservation through development and landscaping guidelines, and the use of recycled water.
- Conserve energy by utilizing alternative energy sources and energy-efficient building and site design principles.

DEVELOPMENT GUIDELINES

- Improve air quality through the reduction of automobile trips by:
 1. Incorporating services for employees into development (restaurant, cleaners, barbers, exercise areas, bike lockers, shower facilities, etc.).
 2. Clustering neighborhood commercial uses near residential developments and providing convenience shopping within walking distance (1/4 mile).
 3. Providing other modes of transportation such as intra-community buses linking activity centers and locating the LRT in most central location in order to provide the maximum amount of accessibility to transit patrons and potential transit patrons.
 4. Developing safe bicycle and pedestrian connections between activity centers by properly designing these facilities with the street system and into other linkage systems.
 5. Encouraging employer subsidization of public transit passes for employees particularly for those projects within 1/4 mile walking distance of public transit stations (LRT) and bus stops.
- Mitigate noise impacts on land uses which are incompatible with the annual community noise equivalent levels, according to General Plan standards, should be mitigated through the following measures:
 1. Screening freeways and other heavily traveled roads through the use of walls and/or berming with landscaping. Where solid walls are necessary, the design of the wall and surrounding land should soften the visual effect of the wall. Landscaping materials and sculptural forms should be incorporated into the design.
 2. Orienting the structures, including the placement of windows, away from roads or noise sources.
 3. Utilizing noise-absorbing building materials in all new construction. Mechanical ventilation should be installed in residential developments to supplement or replace air conditioning where insulation is the chief means of reducing noise. Mechanical systems should be designed to use as little energy as possible, and to provide as many aesthetic elements as possible. For instance, cooling towers can become fountains, stream exhausts can have sculptured expressions, and landscaping can be used for energy and noise protection purposes.
 4. Buffering residential development sufficiently from noise by means of setbacks or elevation differences. Such buffers along freeways or roads could be used for compatible uses, such as pedestrian paths, bikeways, or open space.

- Improve water quality through the following measures:
 1. Practice erosion control techniques when grading or preparing building sites.
 2. Utilize ground cover vegetation when landscaping a development in a drainage area to help control runoff.
 3. Upgrade aging sewer and water lines as part of a capital improvements program in the Valley.
 4. Incorporate sedimentation ponds as part of any flood control or runoff control facility.
- Conserve water through the following measures:
 1. Landscape with native, drought-resistant vegetation.
 2. Use water saving devices in all new development projects.
 3. Utilize water from the water reclamation project for irrigation of landscaping. The City's water reclamation project located south of the stadium is intended as a pilot project which will initially have the capability to reclaim one million gallons of water a day. This water could be utilized to irrigate landscaping or with public and private projects in the vicinity of the reclamation plant.
 4. Use techniques recommended by Department of Water Resources (see **Appendix D**).
- Encourage new development to make the best use of available energy through the following measures:
 1. Clustering buildings in order to use a common heating/cooling source.
 2. Use a north-south orientation to take advantage of passive solar energy and provide the option of installing active solar equipment.
 3. Design the building to allow flow-through ventilation of air from outside, thus reducing mechanical ventilation costs and energy requirements.
 4. Utilize building materials which will act as insulators or conductors, depending on the energy needs.
 5. Use architectural designs, forms, materials and orientations which lend themselves to solar heating and cooling. For example, sloped roofs, if properly oriented and angled, can readily be retrofitted for solar heating. Site location of new buildings should be carefully considered in order to avoid casting shadows on existing buildings so as not to preempt opportunities for solar heating and cooling for those buildings.